

GENERA *NABIS* LATREILLE AND *STENONABIS* REUTER (HEMIPTERA:
NABIDAE) IN AUSTRALIA

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Descriptions of three species of *Nabis* Latreille and seven species of *Stenonabis* Reuter are presented. Two new species, *Stenonabis henriettae* sp. nov. and *Stenonabis morningtoni* sp. nov., are described and illustrated. A key to *Nabis* and *Stenonabis* species is provided.

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First investigations and preliminary descriptions of the Australian species of *Nabis* Latreille and *Stenonabis* Reuter were done by Dr I.M. Kerzhner (1969). His work was mainly based on the material of the South Australian Museum, Adelaide (SAMA).

Additional material for the present paper was supplied by the Queensland Museum, Brisbane (QM); Entomology Department, Queensland University, St Lucia (EUQ); Australian National Insect Collection, Canberra (ANIC); Western Australian Museum, Perth (WAM); Australian Museum, Sydney (AM); Museum and Art Galleries of the Northern Territory, Darwin (NTM); Zoological Museum der Humboldt-Universität, Berlin, DDR (ZBM).

Other abbreviations of the Museums: AMNH — American Museum of Natural History, New York, USA; BMNH — British Museum Natural History; ZIN — Zoological Institute, Leningrad, USSR.

The common species *Nabis biformis* Bergroth, previously known only from New Zealand (Kerzhner 1969), is here recorded from Australia. The macropterous form of *Nabis fraternus* Kerzhner is recorded and described. The female genitalia in *Nabis biformis* Bergroth and *Nabis fraternus* Kerzhner are illustrated for the first time. Both macro- and brachypterous forms of these two species are redescribed with the use of the additional material from other Museums in Australia. *Nabis kinbergii* Reuter, previously misidentified in Australia as *Nabis capsiformis* Germar (Kerzhner 1981, Woodward 1982, Woodward & Strommer 1982) is redescribed.

Out of 11 species of *Stenonabis* known in Australia so far, 2 species are newly described, 1 species (*S. geniculatus* Erichson) is described fully in the first time, 4 other species (*S. imitator* Kerzhner, *S. roseus* Kerzhner, *S. nitidicollis* Kerzhner, *S. darwini* Kerzhner) are redescribed with the use of additional material; the remaining 3 species (*S. communis* Kerzhner, *S. robustus* Kerzhner, and

S. australicus Kerzhner) are presented in Kerzhner (1969). New illustrations are given for the female genitalia in *Stenonabis geniculatus* Erichson, and male genitalia in *Stenonabis roseus* Kerzhner, *Stenonabis darwini* Kerzhner and *Stenonabis nitidicollis* Kerzhner. A previously unrecorded, brachypterous form of *Stenonabis nitidicollis* Kerzhner is described.

Genus *Nabis* Latreille, 1802

Type-species: *Cimex vagans* Fabricius, 1787 = *Cimex fesus* Linnaeus, 1758, designated by Westwood, 1840.

Body rather narrow, with sides parallel or slightly widening in middle of abdomen, especially in females. Head margins behind eyes nearly parallel; ocelli set rather wide apart. Antennae without dark rings; legs often with dark patches or short lines on femora, but without dark or black rings. Pronotum without punctation and with brown pattern on fore lobes, comprised of series of irregularly-shaped and sized brown patches. Connexivum yellowish, very rarely with dark patches, separated underneath from abdominal sternites by a groove and elevated in middle part of abdomen in a cylindrical form.

Paramere variously shaped, but most often with body of blade semicircular; aedeagus with a variable number of sclerites; vagina symmetrical or asymmetrical, with 1-2 parietal glands.

Macropterous and brachypterous forms, but hemelytra nearly always reaching end of abdomen. The genus includes subgenera *Nabis*, *Tropiconabis* and *Reduviolus*, differentiated from one another by the form of the genitalia; subgenus *Reduviolus* is not represented in tropical areas (Kerzhner 1981).

At the suggestion of Dr I.M. Kerzhner, the two Australian species of the genus *Nabis* have been placed in the new sub-genus *Australonabis*. Besides these two closely related species (*N. biformis* and

N. fraternus) discussed below, the subgenus includes *N. larvatus* Kerzhner from New Caledonia.

KEY TO AUSTRALIAN SPECIES OF *NABIS*

- 1 — Always macropterous. Length of fore femora less than 2.3 mm. Aedeagus with 3 sclerites. Vagina with a dorsal sack covering base of common overduct (Subg. *Tropiconabis*)
 *Nabis kinbergii* Reuter
 — Mostly brachypterous. Length of fore femora 2.5-3.1 mm. Aedeagus with numerous similar sclerites in basal part and with 4 or 5 dissimilar sclerites in apical part. Vagina without dorsal sack (Subg. *Australonabis*) 2
- 2 — Aedeagus with 5 sclerites in apical part; vagina symmetrical, with rounded or flat base; walls of vagina without sclerotized bands
 *Nabis biformis* Bergroth
 — Aedeagus with 4 sclerites in apical part. Vagina slightly asymmetrical, with cone shaped base and sclerotized bands in right wall
 *Nabis fraternus* Kerzhner

Australonabis subgen. nov.

Nabis biformis Berggr.-Gruppe: Kerzhner, 1969: 346.

Type-species: *Reduviolus biformis* Bergroth, 1927.

Species with pronounced wing reduction: in most specimens of *N. biformis* and in all known specimens of *N. fraternus*, hemelytra about twice the length of scutellum, without membrane, while *N. larvatus* is apterous. Disc of paramere nearly semi-circular, with pointed apex; aedeagus with a row of numerous similar sclerotized plates in basal half and some additional sclerites in apical half (4-5); vagina without sack covering its opening, with or without sclerotized bands in the wall.

Distinguished from the other subgenera by the unique sclerotized structures in the basal part of the aedeagus.

Nabis biformis (Bergroth) (Figs 1a, b, c, d)

Reduviolus biformis Bergroth, 1927: 681.

?*Nabis lineatus* Hutton, 1904, 372 pp. (non Dahlbom, 1851).

Nabis biformis Kerzhner, 1969: 346-347, Fig. 43.

Macropterous form

Head: pale yellow with dark areas behind eyes and ocelli, pale brown longitudinal stripe between ocelli and eyes and broad dark brown median stripe beneath; clypeus brownish. Antennifers brown, an-

tennal segments brownish yellow, segment II with brown apex; rostral segments I and II pale yellow beneath, brown dorsally, segments III and IV brownish. Eyes and ocelli reddish brown. Short shiny yellow hairs, becoming denser behind eyes and ocelli and a few longer ones dorsally; medium-sized and rather dense hairs beneath. Sides behind eyes parallel.

Thorax: pronotum yellowish with dark brown markings: broad median longitudinal stripe becoming narrower on collar and hind lobe; brown pattern on fore lobe and additional pale brown parallel stripes on each side of median one on hind lobe. Small dark dots on collar and hind lobe. Pronotum as long as head, laterally distinctly sinuate, with base about 2.5 or more times broader than apex; fore lobe slightly convex, 1.2 times longer than hind lobe, latter strongly declivous, forming an angle with fore lobe. Scutellum large, wider than long, with pointed apex, dark brown, with 2 yellow rounded patches on sides. Hemelytra reaching end of abdomen; corium and clavus covered with short pale hairs, corium with prominent yellow veins and dark clavus; membrane hyaline, transparent, with distinctive dark veins. Coxae yellowish with dark brown patches basally, both anteriorly and posteriorly; femora pale yellow with touch of pinkish tones and brown markings: 2 rows of short transverse parallel stripes (15-16) laterally and irregular row of dots dorsally; tibiae yellow with brown apices and bases. Legs covered with pale, medium-sized hairs, becoming dense ventrally and with sparse long ones laterally and dorsally; tibiae with 2 rows of dark, very small teeth ventrally.

Abdomen: brownish beneath, covered with short decumbent hairs.

Brachypterous form

Head: as in macropterous form.

Thorax: hind lobe of pronotum pale yellow with indistinct additional stripes on sides of median one; punctuation on collar and hind lobe of pronotum indistinct; pronotum a little shorter than head, at sides slightly sinuate behind middle, at base 2 or less times as broad as at apex; hind lobe not forming angle with fore lobe, 2.5 times shorter than fore lobe. Scutellum smaller than in macropterous form, a little wider than long. Hemelytra short, more than twice as long as scutellum, without membrane; outer margin of corium incurved posteriorly, apical angle somewhat distant from lateral margin of abdomen, apical margin obliquely straight, forming right angle with apical margin of outer corium.

Abdomen: brown with yellow patches on connexivum beneath or yellow with brown median stripe dorsally.

Male genitalia: parameres large, with body of blade broad and apex curved (Fig. 1a, b); aedeagus

with numerous similar sclerites (plates) in basal part and with 5 dissimilar sclerites in apical part, with 2 of them dentate (Fig. in Kerzhner 1969).

Female genitalia: vagina symmetrical, with rounded or flat base; base of vagina without sclerotized bands; parietal glands asymmetrical in shape and unequal in size, with their posterior parts (loops) lying on dorsal side and anterior loops on ventral side of vagina; right gland larger, with dorsal and ventral loops of equal size, left gland much smaller, with ventral loop much larger than dorsal one (Fig. 1c, d).

Type material

Syntypic series from New Zealand, examined by Kerzhner (1969) — 1 ♀, macropterous, Henderson, Auckland, 14 Mar. 1922, ad *Lizzia* (*Albizia*?), Myers; 1 ♀, brachypterous, Herne Bay, Auckland, 24 Feb. 1919, G. Howers; 1 ♀, brachypterous, Whangarei, 18 Feb. 1923, J.G. Myers; 1 ♀, brachypterous, N. Auckland, Pea(?), T.R. Harris (all BMNH).

Other material examined

Tasmania: 1 ♂, brachypterous, 7 mls W. Rosebury, 18 Feb. 1963, I.F.B. Common & M.S. Upton (ANIC); 1 ♂, brachypterous, Lake Dobson Rd., 8 Feb. 1955, T.E. Woodward, bracken fern (QM); 1 ♀, macropterous, Devonport, 16 Feb. 1967, G. Monteith (QM); 1 ♀, brachypterous, Waratah, A.M. Lea, former paratype of *Nabis fraternus* Kerzhner; New South Wales: 1 ♂, brachypterous, Barrington Tops, via Salisbury, 28–30 Dec. 1965, T. Weir (QM); 1 ♀, macropterous, 1 ♀, brachypterous, Mt. Dromedary, nr Narooma, 2100 ft., 4 Feb. 1969, M.S. Upton, Taylor, Cardale (ANIC); 3 ♀, brachypterous, Pilot Hill, Bago, Forest below (?), 12 Mar. 1957 (ANIC); Australian Capital Territory: 1 ♂, brachypterous, Blundells, 31 Jan. 1970, E.F. Riek (ANIC); Victoria: 1 ♂, brachypterous, Frankston, Melb., 17 Jan. 1955, T.E. Woodward (QM); 2 ♀, brachypterous, Beech Forest, 4? 1937, R.V. Fyfe (ANIC).

Measurements

In Kerzhner (1969).

Remarks

N. biformis was described from New Zealand by Bergroth (1927) from 3 females, but he did not examine the genitalia. Kerzhner (1969) re-examined supposedly the same syntypes together with additional material from New Zealand and provided measurements both macro- and brachypterous forms and drawings of the male genitalia. The above

description of the macro- and brachypterous forms together with the description of the female genitalia are prepared from material examined from various locations in Australia.

Examination of the material from Australia shows that *N. biformis* is a rather common species widely distributed in New South Wales, Australian Capital Territory, Victoria and Tasmania. The species is very similar in appearance and in most measurements to *N. fraternus* Kerzhner, and distinguished from the latter by its longer legs, antennae and rostrum, but it is very difficult to separate the two species without comparing their genitalia. The male genitalia of *N. biformis* differ from those of *N. fraternus* by the presence of 2 additional dentate sclerites in the distal part of the aedeagus, by the noticeably broader body of the blade of the paramere and its curved apex. The difference in the female genitalia is not as marked as in the male, but the vagina of *N. biformis* lacks the sclerotized bands in the right wall and has a rounded base (ovally protruding in *N. fraternus*).

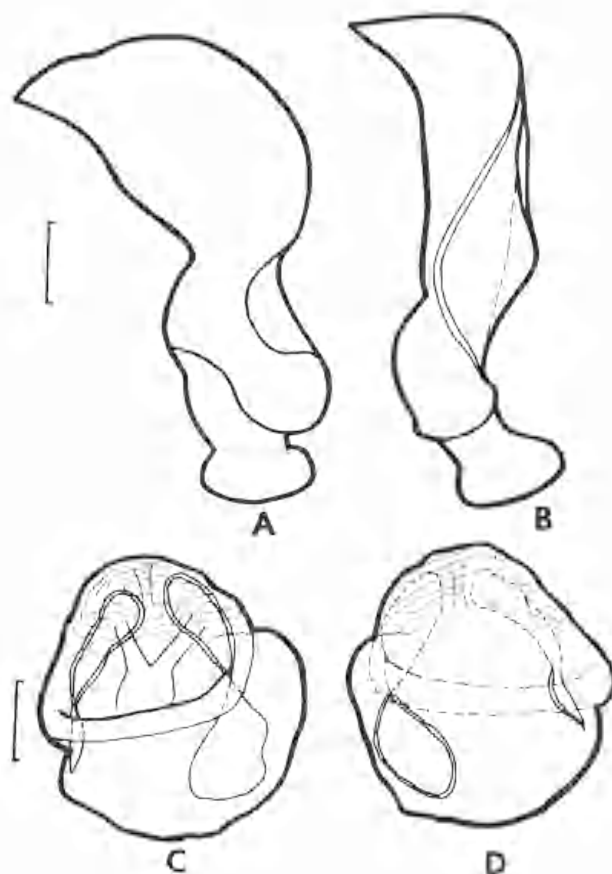


FIGURE 1. *Nabis biformis* Bergr.: a — paramere, lateral view; b — the same, from below; c — vagina, view from above; d — the same, from below.

Nabis fraternus Kerzhner
(Figs 2a, b, c, d)

Nabis fraternus Kerzhner, 1969: 347-349, Fig. 44.

Macropterous form

Head: pale yellow with brownish areas in front of and behind eyes; longitudinal median stripe pale brown between ocelli and eyes, fading toward base of clypeus; broad median stripe beneath; clypeus and antennifers dirty yellow. Antennae brownish yellow, segment II with brown apex; rostral segments I and II pale yellow ventrally, brown dorsally; segments III and IV brownish. Eyes shiny, silvery; ocelli yellow with red rim.

Thorax: pronotum dirty yellow with pale brown median longitudinal stripe becoming narrower on hind lobe and with indistinct brown pattern on fore lobe; small dark dots on collar and hind lobe. Pronotum a little longer than head, at sides distinctly sinuate behind middle, at base about 2.3 times broader than apex. Fore lobe nearly flat, 1.3 times longer than hind lobe, latter strongly declivous, forming an angle with fore lobe. Scutellum yellow with wide dark brown median stripe becoming narrow toward apex and with irregular brown areas basally and laterally. Coxae yellow with brown bases; femora pinkish yellow with brown markings: 2 rows of short transverse parallel stripes (12-13) and an irregular row of dark brown dots dorsally; tibiae yellow with brown apices, fore tibiae with 2 dark rings on basal 1/2, all tibiae with 2 longitudinal rows of small teeth ventrally. Hemelytra dirty yellow, reaching end of abdomen or little shorter; corium with prominent yellow veins and small dark dots basally and on clavus; membrane hyaline, transparent, with indistinct veins; corium and clavus covered with short decumbent hairs.

Abdomen: yellowish beneath, with brown median stripe; connexivum brownish, with pinkish tones.

Brachypterous form

Head: as in macropterous form, but with dark brown eyes and ocelli; brownish median stripe between eyes and ocelli widening toward base of clypeus.

Thorax: pronotum with dark brown median stripe not narrowing on hind lobe and less prominent punctation on collar and hind lobe; fore lobe convex, raised above collar, hind lobe not forming angle with fore lobe. Scutellum smaller than in macropterous form, a little longer than wide. Legs without pinkish tones, fore tibiae without visible rings on basal 1/2. Hemelytra very short, dirty yellow, without visible dots on base of corium and clavus, more than twice as long as scutellum; membrane absent.

Abdomen: dark brown beneath, with yellow median stripe, yellowish brown dorsally, with brown median longitudinal stripe and yellow connexivum.

Male genitalia: paramere large, with relatively narrow body of blade and slightly curved apex (Figs 2a, b); aedeagus with 4 dissimilar sclerites in apical part and numerous similar plates in basal part (Fig. in Kerzhner 1969).

Female genitalia: vagina slightly asymmetrical, with cone shaped base and sclerotized bands on right wall; parietal glands asymmetrical and of unequal size; left gland much smaller, with its ventral loops larger than dorsal ones (Fig. 2c, d).

Type material

Holotype — 1 ♂, brachypterous, Tasmania, Waddamana, R. Ouse, below outlet, 20 Feb. 1936, Parker (BMNH); paratypes — 3 ♀, brachypterous, the same location (BMNH, ZIN, not examined), but the fourth paratype, ♀, brachypterous, Tasmania, Waratah, A.M. Lea (SAMA), has been examined and found to be a specimen of *Nabis biformis*.

Other material examined

New South Wales. 1 ♀, macropterous, Byron Bay, 25 Nov. 1971, N. Monroe (EUQ); Tasmania: 1 ♀, brachypterous, Miena, Great L., 17 Feb. 1955 (EUQ); 1 ♂, brachypterous, Duck Cr., nr Dec, 12 Feb. 1955, T.E. Woodward (EUQ).

Measurements

Macropterous form: head length 1.40, preocular part 0.70, postocular 0.25, length of eyes 0.45, width across eyes 0.90, interocular distance 0.40, width in front of eyes 0.45, behind eyes 0.60. Length antennal segments I 1.10, II 1.75, III 1.75, IV 1.45; length rostral segments I 1.10, III 1.0, IV 0.45. Median length of pronotum 1.50, collar 0.25, fore lobe 0.70, hind lobe 0.55; anterior width 0.70, posterior width 1.60; width of scutellum 0.90, length 0.80. Length fore femora 2.60, tibiae 2.00, mid femora 2.25, tibiae 1.85, hind femora 3.35, tibiae 3.60. Length of body 8.7 mm, width across hemelytra 1.7 mm (♀ from material examined).

Brachypterous form: in Kerzhner (1969).

Remarks

Nabis fraternus Kerzh. is a rather rare species known so far from New South Wales and Tasmania and is represented both by macro- and brachypterous forms. It is very similar to *N. biformis* and is separated most convincingly by the construction of the genitalia.

Subgenus *Tropiconabis* Kerzhner, 1968

Type-species (original designation): *Nabis capsiformis* Germar, 1938.

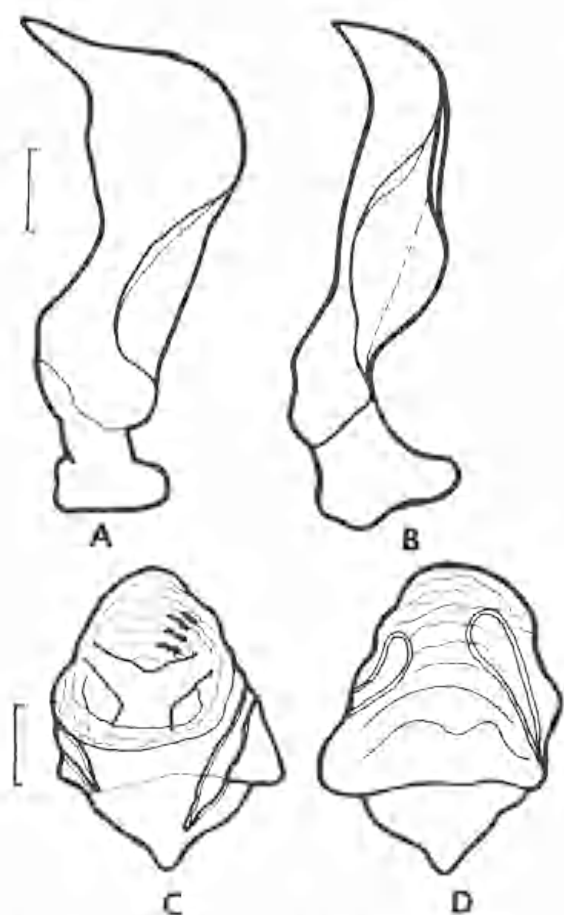


FIGURE 2. *Nabis fraternus* Kerzh.: a — paramere, lateral view; b — the same, from below; c — vagina, view from above; d — the same, from below.

Macropterous species, with wings extending well beyond end of abdomen. Paramere small, with semicircular blade; aedeagus with two larger sclerites pointing in opposite directions, and third, smaller one; vagina with oval sack covering base of common oviduct dorsally, with (*N. capsiformis*) or without (*N. kinbergii*) division on left and right parts. The subgenus is represented in tropics and subtropics and includes, besides *N. capsiformis* and *N. kinbergii*, *N. maoricus* Walker (New Zealand) and *N. consimillis* Reuter (Ecuador, Peru, Galapagos Is). In Australia there is only one species, *N. kinbergii*.

Nabis kinbergii Reuter
(Figs 3a, b, c)

Nabis kinbergii Reuter, 1872: 90 (part)
Sastrapada nigrolineata Distant, 1920: 159 (syn. with *N. kinbergii* by Kerzhner, 1981).
Nabis nigrolineata: Cheesman, 1927: 158
Nabis tasmanicus Remane, 1964: 257 (syn. with *N. nigrolineatus* by Kerzhner 1969).

Nabis nigrolineatus: Kerzhner, 1969: 354-355
Tropiconabis nigrolineatus: Kerzhner, 1968: 852; Woodward, 1982: 143-146.
Nabis (Tropiconabis) kinbergii: Kerzhner, 1981: 294-296.
Nabis capsiformis: auct. non Germar: non Woodward & Strommer, 1982: 306.

Description

Head: dull, with shiny clypeus and antennifers, yellow with dark brown areas in front of and behind eyes and with median longitudinal stripe between ocelli and eyes, broadening toward clypeus; antennifers and base of clypeus brownish. Head beneath brown greyish or greyish white, or head entirely pale yellow with darkish areas in front of and behind eyes and antennifers; pale beneath. Eyes and ocelli shiny, reddish brown, yellowish brown or silvery brown. Antennae brownish yellow or yellowish brown with segment I yellow ventrally. Rostral segment I yellow with brown base, segment II and III yellowish brown, yellow ventrally, segment IV with brown apex. Head covered with short pale hairs dorsally and on antennae and rostrum, becoming longer and denser ventrally on clypeus and rostral segment I.

Thorax: pronotum dull, yellow, dirty yellow or pale greyish yellow, with dark brown markings; brown median longitudinal stripe, becoming much narrower on collar and hind lobe, brown pattern on fore lobe and very indistinct additional pale brown stripes, two on each side of median one; where pronotum very pale, only pattern on fore lobe visible. Scutellum yellow, orange yellow or pale yellow with broad brown or darkish median stripe reaching or not reaching its apex. Pronotum longer than head, at sides slightly sinuate behind middle, at base ♂ 1.8-2.1, ♀ 2.2-2.3 times broader than at apex. Fore lobe slightly convex; hind lobe slightly raised above fore lobe. Coxae yellow or pale yellow; legs entirely yellow or brownish yellow; sometimes fore femora with row of short horizontal parallel brown stripes externo-laterally; fore and mid tibiae with 2 rows of very small brown teeth ventrally. Hemelytra translucent, sometimes transparent, dirty yellow or pale yellow to whitish, exceeding end of abdomen by up to 1/2 their length; corium with prominent yellow or pale yellow veins, these sometimes with irregular brown markings; clavus brownish, dirty yellow or pale yellow with brown apex, with short decumbent hairs; membrane with brownish veins. Ventrally thorax yellow with dark brown meso- and meta-sternum and with dark brown longitudinal stripe on mesopleura becoming much narrower on metapleura; sometimes entirely pale yellow, without brown markings or with very pale ones.

Abdomen: yellowish brown with yellow connexivum and median stripe, or sometimes entirely pale yellow with or without median stripe, covered with small decumbent hairs.

Male genitalia: paramere with inner margin angularly incised at junction of shank and blade, apex of blade curved (Fig. 3a); aedeagus with 3 sclerites, one of them large, next to very small one, pointing in same direction, third sclerite of medium size, pointing in opposite direction to other two (Fig. 3b).

Female genitalia: vagina entirely membranous, thin-walled, without division into right and left lobes (in contrast to *N. capsiformis*, Fig. 3c).

Type material

Lectotype of *kinbergii* (designated by Kerzhner, 1981) 1 ♀, 'Sydney', Kinberg, Naturhistoriska Riksmuseet, Stockholm; Holotype of *nigrolineata*, ♀, Central New Caledonia, 17.XI.1914, P.D. Montague (BMNH); Holotype of *lusmanicus*, ♂, Tasmania, King Is. Lea, Zool. Mus., Helsinki University, paratypes from Bismarck Is, Australia and Fiji (the same Museum) and in Dr R. Remane's collection (Mährburg/Lahn, BRD).

Other material examined

Northern Territory: 1 ♂, Magela Cr.; Queensland: 1 ♂, Lake Idamea, Glenormiston St, 1 ♀, Normanton, 1 ♂, Mornington, 1 ♀, Cunnamulla; New South Wales: 1 ♀, Upper Williams R.; South Australia: 1 ♂, 1 ♀, L. Eyre, 1 ♂, 1 ♀, Wirreanda Cr., 1 ♂, nr Victory Well, Everard Pk., 1 ♂, Athelstone, 1 ♂, 1 ♀, Mt. Lofly, 1 ♀, Coward Spring, 1 ♂, Jerry's Well; Fiji: 1 ♀; New Hebrides (now Vanuatu), 1 ♂, 1 ♀ (specimens from various collections in Australia).

Measurements

Head length ♂ 1.00–1.05, ♀ 1.05–1.10, preocular part ♂, ♀ 0.50–0.55, postocular part ♂ 0.15–0.20, ♀ 0.20, length of eyes ♂ 0.30–0.35, ♀ 0.35; width across eyes ♂ 0.70–0.80, ♀ 0.75–0.80, interocular distance ♂ 0.35–0.37, ♀ 0.35–0.40, width in front of eyes ♂ 0.40, ♀ 0.40–0.45, behind eyes ♂ 0.50–0.55, ♀ 0.55, width of eyes ♂ 0.17–0.20, ♀ 0.22. Length antennal segments I ♂ 1.05–1.20, ♀ 0.90–1.05, II ♂ 1.60–1.80, ♀ 1.45–1.80, III ♂ 1.65–1.70, ♀ 1.50–1.60, IV ♂ 0.90–1.00, ♀ 0.90. Length rostral segments II ♂ 0.85, ♀ 1.00, III ♂ 0.85, ♀ 1.00, IV ♂ 0.40, ♀ 0.40–0.45. Median length of pronotum ♂ 1.10–1.35, ♀ 1.30–1.40, collar ♂, ♀ 0.20, fore lobe ♂ 0.50, ♀ 0.50–0.55, hind lobe ♂ 0.45–0.60, ♀ 0.60–0.65; anterior width ♂, ♀ 0.70, posterior width ♂ 1.30–1.50, ♀ 1.55–1.60. Length of scutellum ♂ 0.55, ♀ 0.60, width ♂ 0.65–0.70, ♀ 0.75. Length fore femora ♂ 2.10–2.15, ♀ 2.00–2.05, tibiae ♂ 1.60–1.75, ♀ 1.70–1.75; mid femora ♂ 1.85, ♀ 1.75–2.10, tibiae ♂ 1.75, ♀ 1.80;

hind femora ♂ 2.75, ♀ 2.80–3.10, tibiae ♂ 3.40–3.50, ♀ 3.25–3.55. Length of body ♂ 7.0–8.7 mm, ♀ 8.5–9.7 mm; width across hemelytra ♂ 1.4–1.75, ♀ 1.6 mm (examined material).

Remarks

In Australia, New Zealand and some islands in the Western Pacific, *N. kinbergii* replaces another widespread and very similar species *N. capsiformis* Germar (Kerzhner 1968, 1969, 1981), with which it had been confused in Australia for years (Woodward 1982, Woodward & Strommer 1982). Detailed examination of the male and female genitalia of large numbers of specimens (all previously referred to *N. capsiformis*) from different regions of Australia, undertaken by Dr Kerzhner, Dr T.E. Woodward and by the present author, convince us that *N. kinbergii* is one of the most common and widespread species of *Nabidae* in all parts of Australia, including Tasmania.

The species was first recognized as distinct from *N. capsiformis* by Remane (1964), who described it as *N. tasmanicus*. Later it was found that *Sastrapada nigrolineatus* Distant from New Caledonia is not a junior synonym of *N. capsiformis*, but a senior synonym of *N. tasmanicus*. However, an earlier name *N. kinbergii* Reuter, based on a female from Sydney and two females from Buenos-Aires, had been synonymized with *N. capsiformis* until Kerzhner (1981) designated the specimen from Sydney as lectotype, thus making *N. nigrolineata* a synonym of *N. kinbergii*; however, the females from Buenos-Aires belong to *N. capsiformis*.

N. kinbergii is very similar in appearance and in most measurements to *N. capsiformis*. Comparison of *N. kinbergii* with the description given by Kerzhner (1981) of *N. capsiformis* shows no significant differences. However, there are obvious differences in the male and female genitalia, best seen in a comparison of the aedeagi which have quantitative differences: (the absence of the small hook (sclerite) in *N. capsiformis*; the parameres in *N. capsiformis* are concavely and more shallowly excavated than in *N. kinbergii*. The vagina in *N. capsiformis* is distinctly divided into smaller, thick-walled right lobe and much larger membranous left lobe, while in *N. kinbergii* the vagina consists only of the thin-walled lobe (Remane 1964, Woodward 1982).

Genus *Stenonabis* Reuter, 1980

Type-species (original designation): *Coriscus annulicornis* Reuter, 1882.

Body more or less elongated. Head behind eyes with approximately parallel sides. Ocelli set wide.

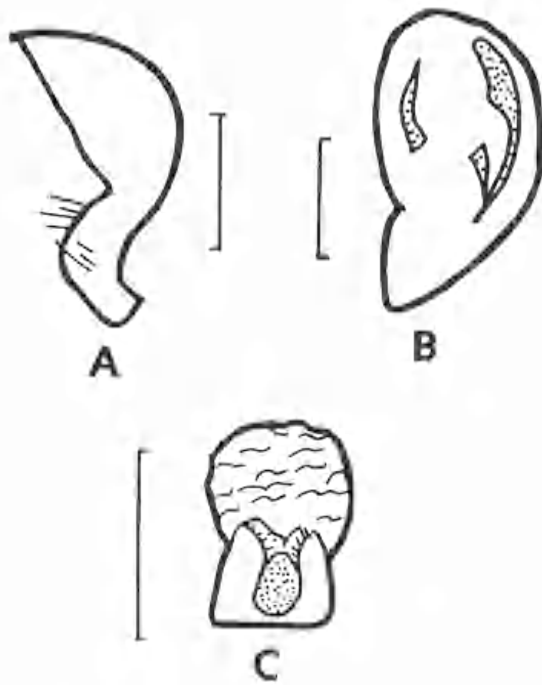


FIGURE 3. *Nabis kinbergii* Reut.: a — paramere; b — aedeagus; c — vagina.

Antennae and legs long, often with dark rings. Collar and hind lobe of pronotum with prominent punctuation; fore lobe with characteristic pattern of brown patches. Connexivum seen from below not separated from abdominal segments by impression or groove, often with dark patches.

Parameres of diverse shape, often with complex outlines; aedeagus with various set of sclerites in shape of hooks, plane or dentate plates, etc. Vagina of various shape, more often asymmetrical, with two parietal glands.

Majority of species macropterous, some represented both by macro- and brachypterous forms; hemelytra sometimes considerably reduced.

The genus is widely distributed in Australia, except for the western regions.

KEY TO THE AUSTRALIAN SPECIES OF *STENONABIS*

- 1 — Dark median longitudinal stripe on hind lobe of pronotum more or less widening toward base; hind femora dark apically 2
- Dark median longitudinal stripe on hind lobe of pronotum usually not widening toward base; if so widening (*S. roseus*), all femora not dark apically 3
- 2 — Outer vein of corium (R+M) and cubital vein (Cu), at least distally, pink or pinkish or hemelytra short; total length of body 6.0–7.6 mm *nitidicollis* Kerzhner
- Veins of corium without pink tones; macrop-

- terous; total length of body 7.75–9.60 mm *darwinii* Kerzhner
- 3 — All femora yellowish, without dark tones 4
- Hind or mid femora dark or black 5
- 4 — Narrow and long, with yellow or yellowish pink body and outer vein of corium bright pink or pink, at least distally; macropterous; total length of body 9.5–10.1 mm, width across hemelytra 1.95–2.15 mm *roseus* Kerzhner
- Broader, with dirty yellow body and veins of corium without pink tones; macropterous or brachypterous; total length of body 8.0–9.4 mm, width across hemelytra 2.0–2.9 mm *robustus* Kerzhner
- 5 — Dark median longitudinal stripe on pronotum uniformly wide for its whole length 6
- Dark median longitudinal stripe wider on collar and fore lobe and noticeably narrower on hind lobe of pronotum 7
- 6 — Pronotum with additional stripes on each side of median stripe, very indistinct on hind lobe of pronotum; brachypterous; total length of body 7.0–7.1 mm *geniculatus* Erichson
- Pronotum with additional stripes on each side of median stripe, distinct on hind lobe of pronotum; macropterous; total length of body (♂) 8.0 mm *morningtoni* sp. nov.
- 7 — Whole body, including head and clypeus, dull; total length 7.5–7.9 mm *australicus* Kerzhner
- Body not entirely dull 8
- 8 — Hind lobe of pronotum more shiny than fore lobe; extreme lateral stripe on hind lobe broad, unbroken; one of two others, closest to median stripe, reduced to small patch at base of pronotum; total length of body 6.7–7.3 mm *communis* Kerzhner
- Hind and fore lobes of pronotum equally shiny, the rest of body dull, all three additional stripes on each side of hind lobe noticeable, but nearly always broken 9
- 9 — At least radio-medial vein (R+M) of corium distally pink or pinkish; eyes reddish brown; blade of paramere relatively narrow, with a large hook; vagina asymmetrical; total length of body 7.0–8.6 mm *imitator* Kerzhner
- Radio-medial vein of corium without pink or pinkish tones; eyes pinkish brown; blade of paramere broad, with relatively small hook; vagina symmetrical; total length of body 7.75–8.25 mm *henrietteae* sp. nov.

Stenonabis henriettae sp. nov.

(Figs 4a, b, c, d, e, f)

Description

Head: slightly shiny except very shiny vertex, clypeus and median stripe on collar; pale yellow, with pale brown stripe between eyes dorsally, widening toward base of clypeus, eyes and ocelli reddish brown, clypeus and antennifers brownish; head beneath dirty yellow. Antennal segments I and II, except brown apex, dirty yellow, segments III and IV yellowish brown. Rostral segments yellowish brown dorsally and yellow ventrally. A few hairs dorsally, shorter sparse hairs ventrally and very short dense ones behind eyes dorsally.

Thorax: pronotum yellow, with pale brown median stripe, becoming narrower on hind lobe; two additional parallel brownish stripes on collar laterally and brownish pattern on fore lobe; three brownish broken parallel stripes on both sides of median one on hind lobe.

Collar and hind lobe of pronotum with distinct punctation; collar with shallow transverse impression in middle; demarcation between fore and hind lobes distinct; anterior margin of pronotum slightly concave, posterior margin nearly straight, lateral margins shallowly concave between lobes, fore lobe slightly raised above collar; hind lobe slightly raised above fore lobe; fore lobe 1.2–1.5 times shorter than hind lobe. Scutellum dull, dirty yellow with dark brown median stripe not reaching apex and with shallow impression in middle. Legs brownish yellow. Coxae and trochanters stramineous; fore and mid femora pale yellow dorsally, brownish with irregular yellow patches ventrally; hind femora stramineous except brown distal one-fifth; all tibiae brownish yellow, brown distally. Hemelytra brownish with yellow veins and yellow areas between them, with brown apex; clavus with two rows of indistinct punctures along basal half of claval suture; membrane yellow, translucent, with brown veins and without closed cells (rarely with 1 or 2); hemelytra surpassing apex of abdomen. Ventrally thorax brownish, meso- and metapleura with dark brown stripe laterally, meron and metepisternum yellow.

Abdomen: yellow beneath with brown median and lateral longitudinal stripes on each side of median one; genital segment brown, with long light hairs. Abdomen in females dull, in males very shiny, covered with short yellow hairs.

Male genitalia: paramere of medium size, with wide blade, prominent hook laterally and small tooth on top of blade (Figs 4a, b, e); aedeagus large, with number of differently shaped sclerites (Fig. 4d).

Female genitalia: Vagina small, symmetrical, thin-walled, with light transverse wrinkles and large parietal glands (Figs 4e, f).

Type material

Holotype — 1 ♂, North Queensland, Henrietta Cr., Palmerston Nat. Park, 23 Jan. 1970, G.B. Monteith (QM); Paratypes — 3 ♀, same data as for holotype (QM).

Other material examined

North Queensland: 1 ♂, 1 ♀, Iron Range, Cape York Pen., 26 May–2 June 1971, B.K. Cantrell; 1 ♂, Iron Range, Middle Claudie R., 19–20 Oct. 1974, M.S. Moulds; 1 ♂, Iron Range, 16–23 Nov. 1965, G. Monteith; 1 ♂, Dividing Range, Cape York Pen., 15 km W. of Captain Billy Cr., 142°45' E., 11°40' S., 4–9 July 1975, G. Monteith (all specimens QM).

Measurements

Head length ♂ 1.05–1.10, ♀ 1.05–1.25, preocular part ♂ 0.55–0.60, ♀ 0.55–0.70, postocular part ♂ 0.15, ♀ 0.10–0.15, length of eyes ♂ 0.35, ♀ 0.35–0.40; width across eyes ♂ 0.85, ♀ 0.80–0.85, interocular distance ♂ 0.35, ♀ 0.30–0.35, width in front of eyes ♂, ♀ 0.40–0.45, width of eyes ♂, ♀ 0.25, width behind eyes ♂, ♀ 0.60–0.65; length antennal segments I ♂ 1.10, ♀ 1.05–1.35, II ♂ 1.50, ♀ 1.35–1.50, III ♀ 1.60–1.85 (♂ missing), IV ♀ 1.55–1.60. Length rostral segments II ♂ 1.05, ♀ 1.10–1.20, III ♂, ♀ 0.95–1.05, IV ♂, ♀ 0.50. Median length of pronotum ♂ 1.50–1.70, ♀ 1.60–1.70, fore lobe ♂ 0.55, ♀ 0.55–0.65, hind lobe ♂ 0.65–0.85, ♀ 0.75–0.85, collar ♂ 0.25–0.30, ♀ 0.30; anterior width ♂ 0.70, ♀ 0.75–0.85, posterior width ♂ 1.55, ♀ 1.70–1.90. Scutellum length ♂ 0.55–0.70, ♀ 0.65–0.70, basal width ♂ 0.75, ♀ 0.80–0.85, commissure ♂ 0.95–1.00, ♀ 0.95–1.15. Length fore femora ♂ 2.50–2.55, ♀ 2.30–2.65, tibiae ♂ 2.25–2.55, ♀ 1.75–2.35, mid femora ♂ 2.30–2.45, ♀ 2.15–2.50, tibiae ♂ 2.05–2.30, ♀ 2.00–2.95, hind femora ♂ 3.00–3.30, ♀ 3.00–3.50, tibiae ♂ 3.50–3.75, ♀ 3.25–4.00. Length of body ♂ 7.75–8.10 mm, ♀ 8.00–8.75 mm; width across hemelytra ♂ 1.60 mm, ♀ 1.75–2.05 mm (type material).

Remarks

S. henriettae is found so far only in Queensland. It is very close in appearance and body measurements to *S. communis* and *S. imitator*; from the former it differs by the less shiny hind lobe of pronotum, from the latter by the absence of the pink tones of the veins of the corium. The difference between the male and female genitalia of *S. henriettae* and these two species is very obvious: the presence of the hook on the top of the blade of the paramere (lacking in *S. communis* and *S. imitator*) and the asymmetrical vagina and parietal glands (symmetrical in these two species).

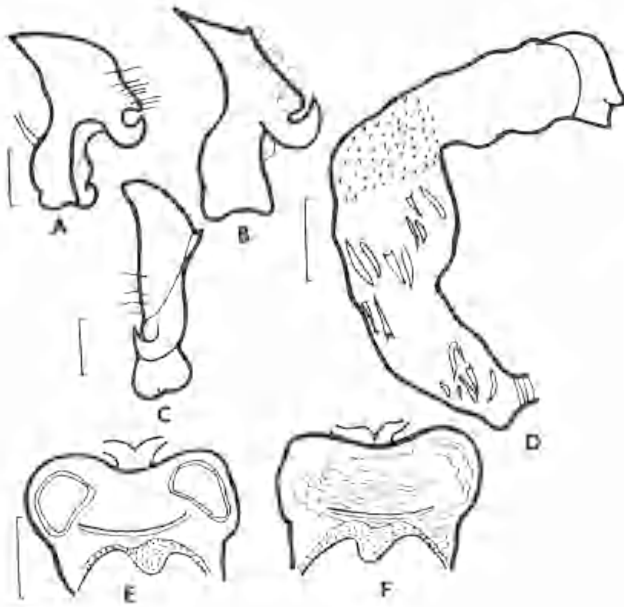


FIGURE 4. *Stenonabis henriettae* sp. nov.: a, b, c — paramere, various positions; d — aedeagus; e — vagina, view from above; f — the same, from below.

***Stenonabis imitator* Kerzhner**
(Figs 5a, b, c, d, e)

Stenonabis imitator Kerzhner, 1969: 310-312, Fig. 17.

Description

Head, collar and pronotum slightly shiny, hemelytra and scutellum dull, sometimes whole body except clypeus dull.

Head: dirty yellow with darkish clypeus; sometimes areas in front of and behind eyes and longitudinal stripe between eyes brownish yellow with brown clypeus; head beneath yellow to brownish yellow, sometimes whitish. Eyes and ocelli reddish brown or brown; antennifers brown, antennae and rostrum yellow or dirty yellow, antennal segment II brown apically.

Thorax: pronotum yellow or dirty yellow with median longitudinal stripe becoming very narrow and sometimes indistinct on hind lobe; collar yellow with median and two additional lateral stripes, sometimes indistinct; fore lobe with pale brown or brown, sometimes very indistinct, pattern; hind lobe with additional stripes on each side of median one: broad curved lateral and two narrower, broken, indistinct stripes between lateral and median. Collar with shallow punctures, those on hind lobe of pronotum deeper and denser; fore lobe raised above collar, hind lobe raised above front lobes basally; anterior and posterior margins of pronotum nearly straight; lateral margins slightly concave; fore lobe separated from hind by shallow impression. Scutellum yellow to dirty yellow with dark brown dif-

fused median longitudinal stripe. Coxae yellow to dirty yellow, trochanters yellow; femora yellow to dirty yellow, hind (sometimes also mid) femora brown apically; tibiae yellow to dirty yellow, brown apically. Hemelytra yellow to dirty yellow; veins of corium and claval suture yellow with brownish lateral margins; R+M vein of corium pink or pinkish distally; apex of corium brown; membrane opaque, yellow or brownish yellow, with straight brown veins. Ventrally thorax yellow or brownish yellow; sometimes meso- and metasternum brownish; pleura yellow with broad median stripe, sometimes meso- and metapleura brownish yellow or dark brown.

Abdomen: yellow or brownish yellow ventrally with brown narrow median longitudinal stripe and broader lateral stripes on each side of median; sometimes all stripes fused together, diffused or indistinct, in this case whole abdomen becoming brownish yellow; sometimes median stripe and two lateral very indistinct, in this case whole abdomen appears brownish; connexivum dirty yellow or brownish.

Male and female genitalia: in Kerzhner (1969).

Type material

Holotype — 1 ♂, Queensland, Cairns District, A.M. Lea (SAMA); Paratypes — 4 ♂, 2 ♀ same data as for holotype (SAMA, ZIN, examined except for material from ZIN).

Other material examined

North Queensland: 1 ♂, Mossman, 25 March 1967, M.S. Upton (ANIC); 1 ♂, 1 ♀, The Boulders, via Babinda, 15 Dec. 1966, B. Cantrell (EUQ); 1 ♂, Innisfail, at light, 16 May 1954, P. Kennedy (EUQ); Northern Territory: 1 ♂, 1 km SE of Batchelor, at light, 12 Apr. 1966, N. McFarland (SAMA).

Measurements

In Kerzhner (1969).

Remarks

S. imitator is very similar in appearance and body measurements to *S. communis* and *S. henriettae*, but differs very clearly in the male and female genitalia; it also differs from these species in the pink tones of R+M vein of the corium (*S. henriettae*), in the less shiny hind lobe of the pronotum (*S. communis*).

***Stenonabis geniculatus* (Erichson)**
(Figs 6a, b)

Nabis geniculatus Erichson, 1842: 282.

Reduviolus (Stenonabis) geniculatus; Reuter, 1908: 108.

Stenonabis geniculatus: Kerzhner, 1969: 300.

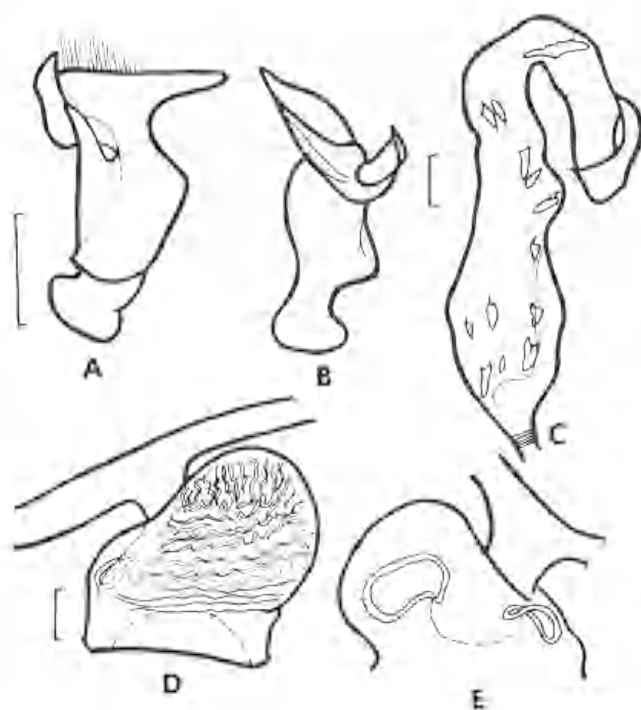


FIGURE 5. *Stenonabis imitator* Kerzh.; a — paramere, lateral view; b — the same, from below; c — aedeagus; d — vagina, view from above; e — the same, from below (Kerzhner 1969).

Description

Head, pronotum and abdomen shiny, hemelytra and scutellum dull.

Head: brown, whitish beneath; clypeus and jugal smooth and more shiny than rest of head; head dorsally with two dark brown parallel lines between eyes, diverging toward clypeus; eyes and ocelli large, reddish brown. Antennal segments I and II yellow, II brown apically (segments III and IV missing). Rostral segment I yellowish brown, segment II brownish yellow, III and IV pale brown.

Thorax: pronotum yellowish brown with wide median longitudinal stripe; additional stripes on hind lobe of pronotum rudimentary, represented by two dark brown patches at base on each side of median stripe. Collar and hind lobe of pronotum with coarse punctures; demarcation between fore and hind lobe indistinct; anterior and posterior margins of pronotum slightly concave; lateral margins shallowly concave between lobes; fore lobe arched and raised above collar, hind lobe flat, short. Scutellum with wide black median stripe reaching apex and dirty yellow sides and with transverse impression basally. Coxae dark brown, hind ones yellow basally; trochanters brownish yellow; fore femora dark dorsally and yellowish brown ventrally, with elongated yellow, irregularly shaped patch on lateral surface distally and with yellow areas on ventral surface distally; mid femora yellowish brown, dark brown apically, with two small yellow patches on inner surface, third basal patch indis-

ting; hind femora brownish yellow with about distal 1/4 dark brown; fore tibiae dirty yellow, mid and hind tibiae yellow, dark brown apically. Fore femora stout, slightly swollen in basal half, mid femora with distal half thicker than basal one, hind femora thin. Coxae covered with short decumbent hairs, becoming longer and denser on femora, especially on ventral surface. Hemelytra very short, cover first visible tergite laterally, their apical margins straight, oblique, directed toward apex of scutellum, with a few very short hairs; membrane extremely short, hardly noticeable.

Abdomen: yellowish brown, with dark brown median longitudinal stripe dorsally; lateral margins and end of abdomen ventrally brownish yellow. Short decumbent yellow hairs ventrally, smooth and hairless dorsally, except for hairy lateral margins.

Male genitalia: unknown.

Female genitalia: vagina asymmetrical, very wrinkled above and beneath, with pointed rounded apex; parietal glands large, nearly symmetrical, visible from above (Fig. 6a, b).

Type material

Holotype — 1 ♀, brachypterous, Tasmania, Schayer (ZBM, examined).

Other material examined

Tasmania: 1 ♀, brachypterous, Cynthia Bay, Lake St Clair, 7–8 Feb, 1967, G. Monteith (QM). Males unknown.

Measurements

Head length 1.10–1.15, preocular part 0.55–0.60, postocular 0.10, length of eyes 0.45; width across eyes 1.00–1.05, interocular distance 0.45, width in front of eyes 0.50–0.55, width of eyes 0.25, width behind eyes 0.75. Length antennal segments I 0.70–0.75, II 1.00–1.15, III 1.20, (IV segment missing); length rostral segments II 1.00, III 1.00, IV 0.50. Median length of pronotum 1.55, fore lobe 0.75–0.80, collar 0.20–0.30; anterior width 0.95, posterior width 1.70–1.75; length of scutellum 0.55, width 0.60. Length fore femora 1.80–1.85, width 0.50, tibiae 1.75; mid femora 2.00, width 0.40–0.45, tibiae 1.70–1.75; hind femora 2.50, tibiae 2.75. Length of body 7.0–7.1 mm, width across abdomen 2.7–2.8 mm (holotype and another ♀ from Tasmania).

Remarks

S. geniculatus is a rare species; the specimen examined differs from the type by the general dark brown colour of the body and appendages (brownish yellow in the type), by the presence of two parallel dark brown lines between the eyes dorsally (lacking in the type) and by the evenly brown colour of the abdomen (yellow with a brown median longi-

tudinal stripe in the type); the size and proportions of the body in the two specimens are very close. The species differs from the other Australian species by the markings of the pronotum and the structure of the female genitalia.

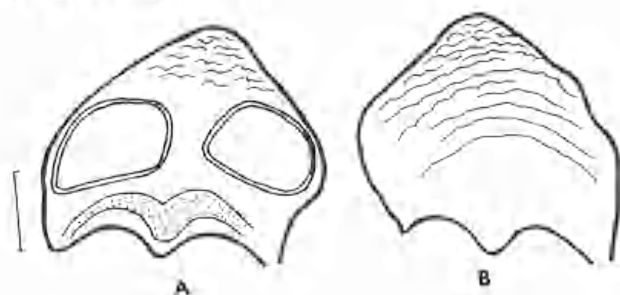


FIGURE 6. *Stenonabis geniculatus* Erich.: a — vagina, view from above; b — the same, from below.

Stenonabis roseus Kerzhner
(Figs 7a, b, c)

Stenonabis roseus Kerzhner, 1969: 306–307, Fig. 14.

Description

Light-coloured species: head and hind lobe of pronotum very shiny, collar and fore lobes less shiny, hemelytra and scutellum dull. Main colour pinkish yellow to dirty pink. Head, antennae, rostrum, legs and hemelytra pale, without any dark markings.

Head: Pinkish yellow with pinkish clypeus and brownish red eyes; antennifers darkish; antennal segment I pinkish yellow, other segments, as well as rostral ones, dirty yellow.

Thorax: Collar and fore lobe of pronotum pinkish yellow, hind lobe yellow; collar, pronotum and scutellum with light brown, rather narrow median stripe, sometimes widening at base of pronotum; fore lobe with light brown pattern; hind lobe with 2 or 3 additional broken pale brown stripes on each side of median one, sometimes without any visible additional stripes. Collar with dense punctures; pronotum with fore and hind lobes separated by shallow impression; anterior and posterior margins of pronotum slightly curved, lateral margins shallowly concave between lobes; hind lobe gradually raised toward hind margin; punctures on hind lobe coarser and deeper anteriorly, becoming finer and shallower posteriorly. Scutellum with yellow sides. Coxae and trochanters stramineous; fore femora pinkish yellow with about proximal 1/5 stramineous; mid and hind femora dirty yellow with about proximal 1/2 stramineous; all tibiae dirty yellow. Hemelytra pinkish yellow, well surpassing apex of abdomen, clavus and membrane basally dirty yellow, clavus with two rows of indistinct punctures alongside basal 1/2 of claval suture; all veins of corium or at least Cu vein pinkish or pink;

membrane with brown veins. Ventrally thorax yellow with brown lateral stripe on each side.

Abdomen: shiny, brownish yellow beneath, except segments I–IV which are stramineous, with broken brown longitudinal stripes laterally, covered with extremely short decumbent hairs; connexivum brownish with yellow oval patch on each segment; genital segment pale brown.

Male genitalia: parameres large, with pointed apical process of blade and double hook ventro-laterally (Fig. 7a, b); aedeagus with few plane sclerites (Fig. 7c).

Female genitalia: in Kerzhner (1969).

Type material

Holotype — 1 ♀, Queensland, Cairns District, A.M. Lea (SAMA); Paratypes — 2 ♀, the same data (SAMA, ZIN; examined except for material from ZIN).

Other material examined

Queensland: 1 ♂ (head and pronotum missing), West Normandy R., 40 ml? of Cooktown, 5 May 1970, G. Monteith (QM); 1 ♀, Kuranda, 28 Dec. 1963, G. Monteith (QM).

Measurements

In Kerzhner (1969). Length of body 9.50–10.0 mm, width across hemelytra 2.10–2.15 mm (type material).

Remarks

S. roseus is known so far only from North Queensland and is distinguished from other species by its large and light pinkish body and appendages, by the markings of the pronotum and the structure of the male and female genitalia.

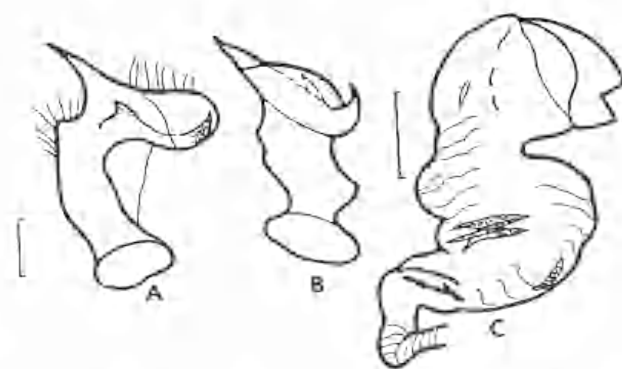


FIGURE 7. *Stenonabis roseus* Kerzh.: a, b — paramere, various positions; c — aedeagus.

Stenonabis nitidicollis Kerzhner
(Figs 8a, b, c, d)

Stenonabis nitidicollis Kerzhner, 1969: 307–308, Fig. 15.

Macropterous form

Head: brownish yellow, shiny, appearing whitish beneath; areas around eyes pale yellow; two dark brown parallel longitudinal lines restricting brownish areas between eyes; eyes and ocelli reddish brown. Antennae and rostrum yellow to dirty yellow, antennal segment II with dark brown ring at about distal 1/5. Short yellow hairs distally, white pubescence and longer sparse hairs ventrally; sides behind eyes nearly straight.

Thorax: pronotum shiny yellow with narrow brown median stripe, more or less widening at posterior margin of very shiny hind lobe; additional brown stripe on collar on each side; fore lobe with brown pattern; hind lobe with curved brown stripe on each side of median one, sometimes widening at posterior margin. Collar and hind lobe of pronotum with sparse, fine punctures; anterior and posterior margins of pronotum nearly straight, lateral impression between lobes shallow, demarcation between lobes indistinct medially; fore lobe slightly raised above collar, hind lobe raised toward posterior margin. Scutellum slightly shiny with wide black median stripe reaching apex. Legs brownish yellow to pale yellow, coxae pale yellow to dirty yellow with fore coxae brownish anteriorly; fore and mid femora brownish yellow, pale on inner surface and with short brown transverse stripes on outer surface; hind femora brownish yellow with brown ring near distal 1/5; all tibiae pale yellow with brownish ring apically. Hemelytra slightly shiny brownish yellow; commissure and veins of corium yellow with brownish rim along both sides, R+M and Cu veins of corium red for about posterior 1/2 and on border with membrane between veins thus forming triangular cell; space between veins yellow to dirty yellow; membrane hyaline, yellow, with brownish straight veins. Hemelytra reaching end of abdomen; covered with short yellow hairs basally and for 3/4 length laterally. Ventrally thorax yellow, metasternum with dark brown patch medially, pleura yellow with dark brown, nearly black longitudinal stripe on each side.

Abdomen: yellow beneath, with brown median longitudinal stripe and another one on each side of median; connexivum yellow with pinkish narrow external edge and small pinkish spots on each segment.

Brachypterous form

Head: dorsally dark brown, appearing whitish beneath; rostral segments I and II dirty yellow (segments III and IV and antennae missing).

Thorax: pronotum shiny, with coarse punctures on collar and hind lobe; anterior margin of pronotum slightly concave, posterior margin curved; demarcation between lobes indistinct; hind lobe not raised above fore lobe; pronotum shorter than in

macropterous forms. Black median stripe on scutellum not reaching apex; scutellum with truncate apex, wider than long. Hemelytra dirty yellow, with indistinct veins, very short, covering first visible tergite laterally, apical margin straight, oblique, directed toward apex of scutellum, with few short hairs; membrane absent.

Abdomen: shiny, covered with short decumbent silvery hairs.

Male genitalia: paramere of medium size and distinct shape, with oblique tooth on top of blade and hook laterally (Fig. 8a, b, c); aedeagus small, with numbers of sclerites (Fig. 8d).

Female genitalia: in Kerzhner (1969).

Type material

Holotype — 1 ♀, New South Wales, Engadine (?) (difficult to read label), 6 Dec. 1958 (AMNH, not examined).

Other material examined

Queensland: 1 ♂, macropterous, Bald Mt. area, 3000'–4000' via Emu Vale, 26–30 (month omitted) 1975, G. Monteith (QM); 1 ♂, macropterous, Crater Nat. Park, Atherton Tbls., 25 Apr. 1970 (QM); 1 ♀, macropterous, Brisbane, 5 Oct. 1962, E.A. Bernays (QM); 1 ♂, brachypterous, Upper Brookfield, 14 Apr. 1962, T.E. Woodward (QM).

Measurements

Macropterous form: head length ♂ 1.00, ♀ 1.05, preocular part ♂ 0.50, ♀ 0.55, postocular ♂ 0.10, ♀ 0.15, length of eyes ♂, ♀ 0.35; width across eyes ♂ 0.80–0.85, ♀ 0.85, interocular distance ♂ 0.35–0.40, ♀ 0.35, width in front of eyes ♂ 0.35–0.40, ♀ 0.45, behind eyes ♂ 0.55–0.60, ♀ 0.60. Length antennal segments I ♂ 0.85–0.95, ♀ 0.90, II ♂, ♀ 1.25, III ♂ 1.40, ♀ 1.50, IV ♂, ♀ 1.50. Length rostral segments II ♂ 0.95–1.00, ♀ 1.00, III ♂ 0.80–0.95, ♀ 0.95, IV ♂, ♀ 0.50. Median length of pronotum ♂ 1.40–1.50, ♀ 1.60, collar ♂, ♀ 0.25, fore lobe ♂ 1.0, ♀ 1.4 times shorter than hind lobe: ♂ 0.55–0.60, ♀ 0.55 and ♂ 0.60–0.65, ♀ 0.80 respectively; anterior width ♂ 0.65–0.70, ♀ 0.70, posterior width ♂ 1.60–1.70, ♀ 1.75. Scutellum length ♂ 0.60–0.65, ♀ 0.90, width ♂ 0.75, ♀ 1.00. Length fore femora ♂ 1.95–2.10, ♀ 2.00, tibiae ♂ 1.60–1.85, ♀ 1.80, mid femora ♂, ♀ 2.00, tibiae ♂ 1.60–1.85, ♀ 1.75, hind femora ♂ 2.50–2.75, ♀ 2.50, tibiae ♂ 2.75–3.25, ♀ 3.00. Total length of body: ♂ 6.0–7.5 mm, ♀ 7.6 mm; width across hemelytra ♂ 1.5–1.7, ♀ 1.7 mm (material examined).

Brachypterous form: head length (♂) 1.00, preocular part 0.51, postocular part 0.15, length of eyes 0.37, width behind eyes 0.15; antennae missing. Length rostral segment II 1.00 (III and IV missing). Median length of pronotum 1.25, collar 0.20; hind lobe very short, 1.3 times shorter than fore lobe

(0.45 and 0.60 respectively); anterior width of pronotum 0.75, posterior 1.50; scutellum length 0.60, width 0.75. Length fore femora 2.10, tibiae 1.85, mid femora 2.00, tibiae 1.75, hind femora 2.75, tibiae 3.25. Length of body (σ) 6.75, width across hemelytra 1.65 mm (examined material).

Remarks

S. nitidicollis differs from other species by its small size, by the kind of markings of the pronotum and by the structure of the male and female genitalia.



FIGURE 8. *Stenonabis nitidicollis* Kerzh.: a, b, c — paramere, various positions; d — aedeagus.

Stenonabis darwini Kerzhner (Figs 9a, b, c)

Stenonabis darwini Kerzhner, 1969: 304–306, Fig. 13.

Description

Upper side of body slightly shiny, scutellum dull. **Head:** brown; areas near eyes dirty yellow dorsally, with 2 dark brown lines, parallel between eyes and diverging before base of clypeus. Eyes and ocelli reddish brown; antennifers and antennal segments brownish yellow, segment II dark distally; rostral segments dirty yellow, segment IV dark distally.

Thorax: collar and pronotum dirty yellow, with dark brown markings; median longitudinal stripe, narrower on hind lobe distally and widening again basally, and 1 or 2 additional stripes on each side of median one so that all 5 stripes parallel and more prominent posteriorly; fore lobe with brown pattern. Collar and hind lobe of pronotum with fine punctures; anterior and posterior margins of pronotum straight, lateral margins shallowly concave between lobes. Scutellum dark brown, nearly black, with 2 small yellow patches laterally. Coxae and trochanters brownish yellow; fore femora yellow on inner and brownish on outer surface, mid femora brownish yellow on about proximal half and dark brown distally, hind femora with about proximal 2/3 yellow and about distal 1/3 brown; all tibiae yellow with dark brown apices. Hemelytra almost

reaching apex of abdomen; clavus, corium and membrane yellow; corium with yellow, membrane with brown veins; membrane hyaline, with or without closed cells and with 9 or 10 veins at posterior margin. Ventrally thorax dark brown.

Abdomen: brownish yellow, with small yellow spot on each segment of connexivum, covered with short silver hairs, genital segment with long pale ones.

Male genitalia: parameres small, with tooth on top of blade medially and large hook laterally (Fig. 9a, b); aedeagus small, with 6 sclerites (2 dentate and 4 plane) in basal half (Fig. 9c).

Female genitalia: in Kerzhner (1969).

Type material

Holotype — 1 ♀, Darwin, G.F. Hill (SAMA) (examined).

Other material examined

Northern Territory: 1 ♂, 1 ♀, 5 km NW of Cahills Crossing, East Alligator River, 28 May 1973, M.S. Upton (ANIC); Queensland: 1 ♂, Lockerbie Area, Cape York, 13–27 Apr. 1973, G. Monteith (QM).

Measurements

Head length σ 1.05–1.35, ♀ 1.20–1.35, preocular part σ 0.55–0.75, ♀ 0.64–0.75, postocular part σ 0.15–0.20, ♀ 0.14–0.20, length of eyes σ 0.35–0.40, ♀ 0.40–0.43; width across eyes σ 0.80–0.95, ♀ 0.83–0.95, interocular distance σ , ♀ 0.30–0.40, width in front of eyes σ 0.45–0.50, ♀ 0.44–0.50, behind eyes σ 0.60–0.65, ♀ 0.60–0.70. Length antennal segments I σ 1.30–1.50, ♀ 1.36–1.75, II σ 2.00–2.10, ♀ 2.10–2.35, III σ 2.45, ♀ 2.10–2.35, IV missing. Length rostral segments II σ 0.85–1.10, ♀ 0.86–1.10, III σ 0.95–1.00, ♀ 0.79–1.00, IV σ 0.50–0.55, ♀ 0.36–0.55. Median length of pronotum σ 1.45–1.70, ♀ 1.50–1.80, fore lobe σ 0.65, ♀ 0.60–0.70, collar σ 0.25–0.30, ♀ 0.30–0.35, anterior width σ 0.60–0.75, ♀ 0.70–0.80, posterior width σ 1.45–1.65, ♀ 1.50–1.75. Median length of scutellum σ 0.75, ♀ 0.70–0.75, basal width σ 0.70–0.80, ♀ 0.70–0.75. Length fore femora σ 2.45–2.50, ♀ 2.65–3.30, tibiae σ 2.25–2.50, ♀ 2.35–2.75, mid femora σ 2.25–2.75, ♀ 2.35–2.75, tibiae σ 2.25–2.50, ♀ 2.25–2.65, hind femora σ 3.40–4.00, ♀ 3.65–4.50, tibiae σ 3.70–4.25, ♀ 3.60–4.65. Length of body σ 7.75–9.00 mm, ♀ 8.80–9.60 mm, width across hemelytra σ 1.30–1.75 mm, ♀ 1.50–1.80 mm (material examined).

Remarks

S. darwini is known so far from the Northern Territory and Queensland and is distinguished from other Australian species by the narrow body, dark

coloration, proportions and markings of the pronotum and the structure of the male and female genitalia.

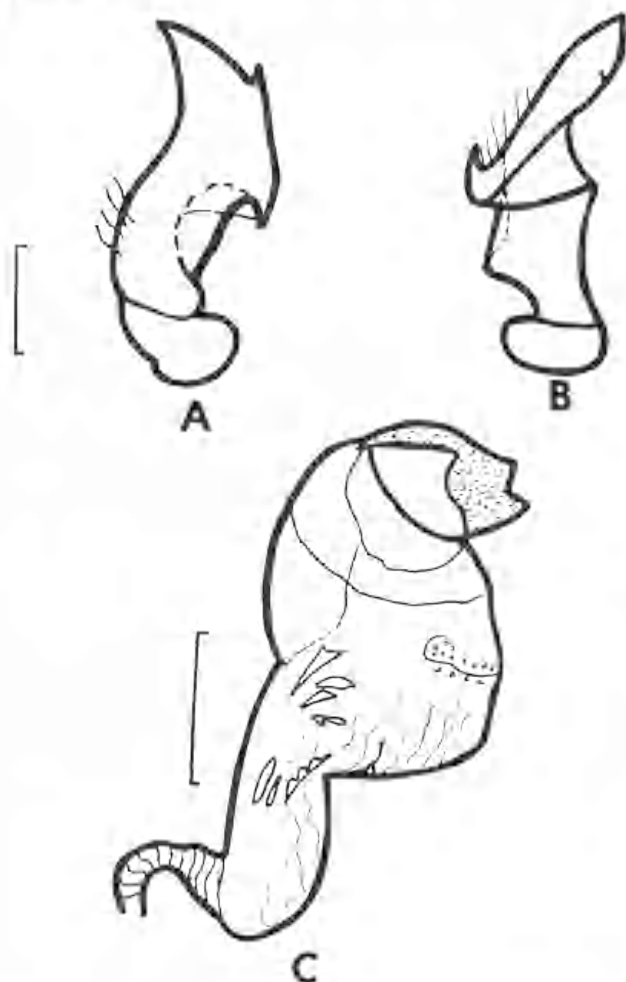


FIGURE 9. *Stenonabis darwini* Kerzh.: a — paramere, lateral view; b — the same, from below; c — aedeagus.

Stenonabis morningtoni sp. nov.
(Figs 10a, b, c, d)

Description

Head dorsally, pronotum and abdomen shiny, scutellum, hemelytra and thorax dull.

Head: dark brown dorsally except for dirty yellow areas around eyes; appears whitish beneath. Antennal segments I and II brown (III and IV missing); rostral segments yellow except for brown I one; antennal segment II with brownish distal fifth. Short silver hairs ventrally and on areas around eyes dorsally and a few long fine hairs on each side laterally. Ocelli large, shiny, nearly touching posterior margin of head, with anterior margins in front of level of posterior margins of eyes.

Thorax: pronotum yellow with wide brown median longitudinal stripe; collar brownish ventrally, with narrow brown additional stripe on each side of median one laterally; fore lobe with brown pat-

tern; hind lobe with 2 parallel brownish stripes laterally on each side of median one, one of them, nearest to median, broken and indistinct. Collar with very fine and hind lobe of pronotum with coarse punctures; fore lobe raised above collar rather steeply, hind lobe raised above fore lobe gradually toward base of pronotum; demarcation between lobes indistinct; anterior margin of fore lobe slightly convex, posterior margin of hind lobe nearly straight; lateral margins of pronotum shallowly concave, nearly straight between fore and hind lobes; fore lobe 1.15 times longer than hind lobe. Scutellum yellow with broad black median longitudinal stripe reaching its apex and with basal impression and pointed apex. Thorax beneath yellowish brown with yellow metasternum and dark brown meso- and metapleura. Legs brownish yellow, coxae and trochanters yellow, fore coxae brown anteriorly; fore femora dirty yellow on inner lateral surface and much darker outside dorsally and ventrally; mid and hind femora dirty yellow, pale yellow basally, brown apically, with indistinct pale brown ring medially; all tibiae brownish yellow. Hemelytra brownish yellow with indistinct veins, corium covered with two rows of punctures alongside basal 1/2 of claval suture; membrane greyish yellow, translucent, with 3 closed cells; hemelytra surpassing apex of abdomen.

Abdomen: brown beneath, with yellowish brown basal area and dirty yellow connexivum; abdomen covered with short dense silver hairs; small shiny areas free of hairs on II basal segment of connexivum.

Male genitalia: parameres large, with wide blade and 3 hooks on it, big hook ventro-laterally with pointed apex and 2 smaller ones dorsally, one of these at base of blade and another on top of blade medially (Fig. 10a, b, c); aedeagus of medium size, with 6 rather big sclerites (3 plane and 3 with forked end, Fig. 10d).

Type material

Holotype — 1 ♂, macropterous, Qld, Mornington Cr. (? not clear writing), J. Mission, 15 May 1963, N.B. Tindale and P. Aitken (SAMA). Females unknown.

Measurements

Head length 1.15, preocular part 0.60, postocular part 0.15, length of eyes 0.40; width across eyes 0.85, interocular distance 0.30, width in front of eyes 0.45, behind eyes 0.55. Length antennal segments I 0.85, II 1.25; length rostral segments II 0.80, III 0.95, IV 0.30. Median length of pronotum 1.70, collar 0.30, fore lobe 0.75, hind lobe 0.65; anterior width 0.85, posterior width 1.80. Scutellum length 0.85, width 1.00. Length fore femora 2.00, tibiae 1.55, mid

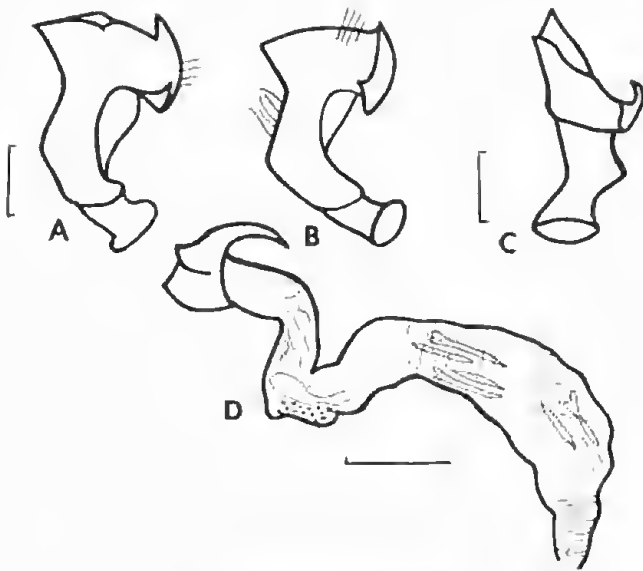


FIGURE 10. *Stenonabis morningtoni* sp. nov.: a, b, c — paramere, various positions; d — acedeagus.

femora 1.90, tibiae 1.75, hind femora 2.60, tibiae 2.80, Length of body 8.0 mm, width across hemelytra 2.2 mm (holotype).

Remarks

The species is known only from type locality in Queensland. It is close in appearance to other *Stenonabis* species, but is clearly distinguished by the kind of markings of the pronotum and by the distinct shape of the male genitalia.

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